AMENDMENTS TO THE SPECIFICATION:

The present Amendment has been prepared in accordance with a revised format established by the U.S. Patent and Trademark Office, as permitted in the Pre-OG Notice entitled "Amendments in a Revised Format Now Permitted."

Please amend the paragraph beginning at page 1, line 21 of the specification as follows:

Fig. 2 shows another conventional configuration, wherein shown are an image sensor chip 1 including the image pickup unit/peripheral circuit 22 shown in ~~Fig. 3~~ Fig. 1, a drive pulse generation circuit 4, and drive pulse wirings 5. The drive pulse generation circuit 4 is not integrated in an image sensor chip. In Fig. 2, the microcomputer 2, the drive mode control wirings 3, and the reference clock wiring 6 are the same as those in Fig. 1.

Please amend the paragraph beginning at page 5, line 17 of the specification as follows:

There are also shown a reference clock generation circuit 7 for the preliminary operation mode; a preliminary operation mode generation circuit 8 for generating a preliminary operation mode clock signal based on the reference clock signal generated by the reference clock generation circuit 7; ~~a switch 9~~ switches 9-1 to 9-4 for selecting either the clock ~~signal~~ signals from the microcomputer 2 or the clock signal of the reference clock generation circuit 7 and the preliminary operation mode generation circuit 8; and an output line 10 from the microcomputer 2 for selecting the ~~state~~ states of the ~~switch 9~~ switches 9-1 to 9-4. The voltage on the output line 10 is for example at a low

level in case the microcomputer 2 is turned off, whereby the ~~switch 9 selects~~ switches 9-1 to 9-4 select the outputs of the internal reference clock generation circuit 7 and the preliminary operation mode generation circuit 8, but assumes a high level in case the microcomputer 2 is turned on whereby the ~~switch 9 selects~~ switches 9-1 to 9-4 select the pulses of the drive mode control wirings 3 and the reference clock wiring 6 from the microcomputer 2.

Please amend the paragraph beginning at page 6, line 10 of the specification as follows:

There are further provided a detection circuit 11 for detecting whether the output of the sensor unit in the preliminary operation mode contains a necessary image signal, and a latch circuit 12 for latching the output of the detection circuit 11, and the output 13 of the latch circuit 12 is transmitted to the microcomputer 2. A switch 14 transmits the output of the sensor 30 either to the image detection circuit 11 or the microcomputer 2. For example the voltage of the output 13 can be selected as high or low respectively when the image pickup unit fetches or not the necessary image. In such situation, the microcomputer 2 in the off state can be turned on by a shift of the output 13 from the low level to the high level, whereby the operation of the image sensor can shift from the preliminary operation under the control of the reference clock generation circuit 7 and the preliminary operation mode generation circuit 8 to the main operation under the control of the microcomputer 2.

Please amend the paragraph beginning at page 7, line 12 of the specification as follows:

At first, in the preliminary operation mode, the clock pulses from the preliminary operation mode generation circuit 8 and from the reference clock generation circuit 7 are input, respectively through the switches 9-1~~, 9-2~~ to 9-4 into the drive pulse generation circuit 21. Also the switch 14 switches the sensor output into the detection circuit 11.

Please amend the paragraph beginning at page 7, line 19 of the specification as follows:

Based on the signals from the reference clock generation circuit 7 and the preliminary operation mode generation circuit 8, the drive pulse generation circuit 21 transmits pulses to the horizontal and vertical scanning circuits, thereby reading the signals from the photoelectric conversion elements of the sensor unit 30. The signals read from the sensor unit 30 are entered into the image detection circuit 11, and, if the necessary image is detected, the output 13 of the latch circuit 12 is shifted to a high level state whereby the microcomputer 2 is turned on. At the same time the ~~switch 9 is~~ switches 9-1 to 9-4 are so shifted that the signal from the microcomputer 2 is supplied to the drive pulse generation circuit 21. Also the switch 14 is so shifted that the sensor output is connected to the microcomputer 2.

Please amend the paragraph beginning at page 8, line 7 of the specification as follows:

Based on the control signal from the microcomputer 2, the drive pulse generation circuit 21 sends pulses to the horizontal and vertical scanning circuits, whereby the signals are read from the photoelectric conversion elements of the sensor unit 30. The signals read from the sensor unit 30 are entered into the microcomputer 2 and subjected to image signal processing such as color processing, white balancing etc. to obtain an image signal.

Please amend the paragraph beginning at page 8, line 16 of the specification as follows:

The above-described embodiment ~~allows to reduce the~~ reduces wasteful power consumption in the microprocessor, by turning off the microcomputer 2 in the preliminary operation because only a simple signal process is executed, and starting the control by the microcomputer 2 in the main operation in which the image information has to be fetched. The preliminary operation reduces power consumption by operating low-resolution readout, and by performing an intermittent operation, for example every 500 ms. Such intermittent operation can be realized by counting the reference clock signals with a counter.

Please amend the paragraph beginning at page 10, line 2 of the specification as follows:

In the following there will be given a detailed explanation on the second embodiment of the present invention, with reference to the attached drawings. Fig. 4 shows the second embodiment of the present invention. An image sensor chip 1 is driven by a drive pulse generation chip 4. In Fig. 4, the ~~image sensor chip 1,~~ microcomputer 2, drive mode control pulse 3, ~~drive pulse generation chip 4,~~ drive pulse 5, reference clock pulse 6, reference clock generation circuit 7, preliminary operation mode generation circuit 8, ~~switch 9~~ switches 9-1 to 9-4, mode switching selection pulse 10, image detection circuit 11, latch 12, image detection discriminating output 13, drive pulse generation circuit 21, and sensor output 20 in the microcomputer control are the same as those shown in Fig. 3 and will not be explained again.

Please amend the paragraph beginning at page 10, line 17 of the specification as follows:

In this configuration, though the entire device is composed of the image sensor chip 1 and the drive pulse generation chip 4, the latter is provided therein with the reference clock generation circuit 7, the preliminary operation mode generation circuit 8 and the ~~switch 9~~ switches 9-1 to 9-4, so that, in the preliminary operation, the image pickup unit and the peripheral scanning circuit ~~2~~ 30 the image sensor chip 1 are operated in synchronization with the reference clock signal generated in the reference clock generation circuit 7, thereby outputting the image signal to the ~~sensor output~~ detection circuit 11 via switch 14.

Please amend the paragraph beginning at page 11, line 1 of the specification as follows:

Also in the main operation, the reference clock pulse 6 and the drive mode control pulse 3 are supplied to the drive pulse generation circuit 21 according to the reference clock signal in the microcomputer 2 to operate the image pickup unit and the peripheral scanning circuit ~~22~~ 30 in the image sensor chip 1, thereby outputting the image signal to the sensor output ~~14~~ 20.

Please amend the paragraph beginning at page 11, line 18 of the specification as follows:

As explained in the foregoing, the first and second embodiments allow ~~to select~~ the selection of the drive mode control for the sensor unit 30 by the external microcomputer 2 or by the reference clock generation circuit 7 and the preliminary operation mode generation circuit 8 formed on the image sensor chip 1 or on the drive pulse generation circuit chip 4, whereby it is rendered possible to suspend the operation of the microcomputer 2 during the preliminary operation mode in which the signal processing by the external microcomputer 2 is not required, thereby suppressing the wasteful power consumption in the microcomputer 2.

Please amend the paragraph beginning at page 12, line 3 of the specification as follows:

Also in the preliminary operation, further suppression of the power consumption is possible since the image pickup unit and the peripheral scanning circuit 30 can be independently operated on the image sensor chip 1 or the drive pulse generation circuit chip 4.

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Please amend the paragraph beginning at page 12, line 8 of the specification as follows:

In the foregoing first ~~and second embodiments~~ embodiment, the sensor unit 30, the reference clock generation circuit 7, the drive pulse generation circuit 21 etc. are assumed to be integrated into a single chip, but it is also possible to integrate only the sensor unit 30 and the reference clock generation circuit 7 ~~only in~~ into a single chip. It is thus possible to change the combination of the circuits to be integrated ~~in~~ into a single chip, or to form such circuits as separate components.

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